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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,793	09/12/2003	Chi-An Kao	TS01-1037	8353

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DUANE MORRIS, LLP
IP DEPARTMENT
ONE LIBERTY PLACE
PHILADELPHIA, PA 19103-7396

EXAMINER	
NGUYEN, KHIEM D	
ART UNIT	**PAPER NUMBER**
2823	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,793	KAO ET AL.	
	Examiner	Art Unit	
	Khiem D. Nguyen	2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *1-7* is/are withdrawn from consideration.

5)☒ Claim(s) *12-14* is/are allowed.

6)☒ Claim(s) *8-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/22/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II, claims 8-14 in the reply filed on January 3rd, 2005 is acknowledged. The traversal is on the ground(s) that the claimed groups are not directed to a process of making and a product made by the process. This is not found persuasive because Group II, claims 8-14 related to an opening having the same features as in Group I, claims 1-7. Furthermore, because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

Oath/Declaration

The oath/declaration filed on September 12th, 2003 is acceptable.

Information Disclosure Statement

The Information Disclosure Statement filed on December 22nd, 2003 has been considered.

Claim Objections

Claim 12 is objected to because of the following informalities: In Claim 12, line 55, deleted "manes" and insert --means--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 8-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (U.S. Pub. 2005/0042523).

In re claim 8, **Wu** discloses a system for creation of an opening of controllable format through a layer of insulation material, comprising:

means for creating an opening (unlabeled) through a layer of etch resist material **8a** provided over the surface of a layer of insulating material **6** having been deposited over the surface of a substrate **2** (pages 6-7, paragraph [0071] and FIGS. 1-2);

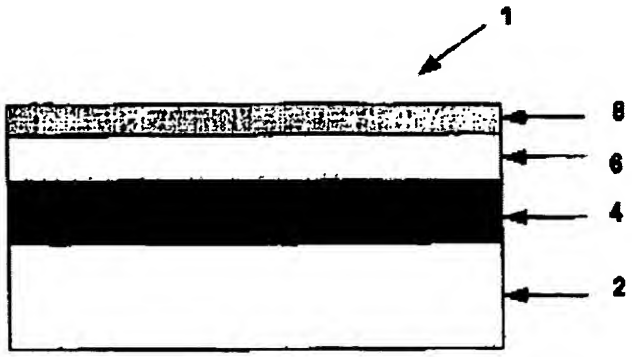

FIG. 1A

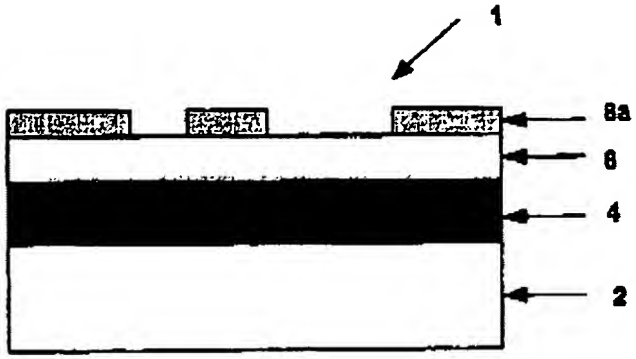

FIG. 1B

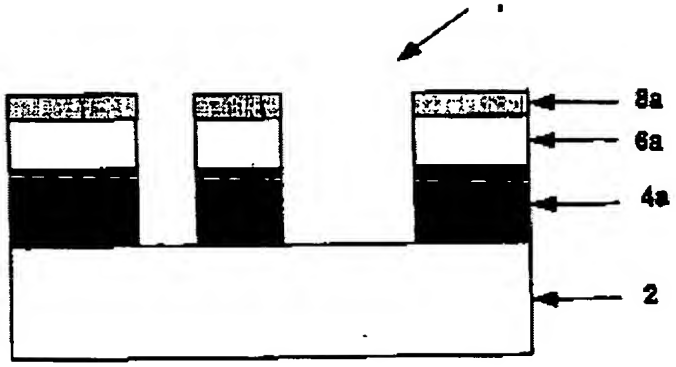

FIG. 1C

means, including a feedback mechanism, for assuring that the opening created through the layer of etch resist material is within design specification (page 3, paragraph [0019]);

means for creating an opening (unlabeled) through the layer of insulation material **6**, whereby a diameter of the layer of insulation material is dependent on a diameter of the opening created through the layer of etch resist material (pages 6-7, paragraph [0071] and FIGS. 1-2); and

means, including a feedback mechanism, for assuring that the opening created through the layer of insulation material is within design specification (page 3, paragraph [0019]);

In re claim 9, **Wu** discloses means for assuring that the opening created through the layer of etch resist material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment; and means for creating instructions for the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (page 8, paragraph [0081]-[0083]).

In re claim 10, **Wu** discloses that means for assuring that the opening created through the layer of insulation material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment; and means for creating instructions for

the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (page 8, paragraph [0081]-[0083]).

In re claim 11, **Wu** discloses that the system of claim 8, further comprising means for creating an opening having non-linear sidewalls through a layer of insulation material by applying a high-polymer based etch to the surface of the layer of insulation material (page 1, paragraphs [0003]-[0005]).

2. Alternatively, Claims 8-11 are also rejected under 35 U.S.C. 102(e) as being anticipated by Lymberopoulos et al. (U.S. Pub. 2004/0092047).

In re claim 8, **Lymberopoulos** discloses a system for creation of an opening of controllable format through a layer of insulation material, comprising:

means for creating an opening (unlabeled) through a layer of etch resist material **250** provided over the surface of a layer of insulating material **240** having been deposited over the surface of a substrate **200** (pages 3-4, paragraphs [0032]-[0034] and FIGS. 1-3);

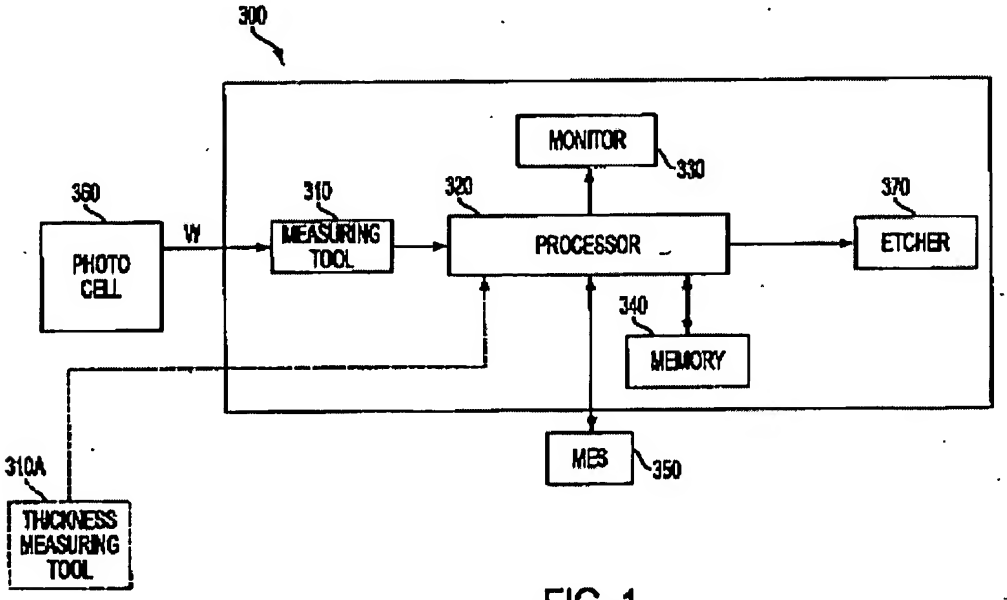

FIG. 1

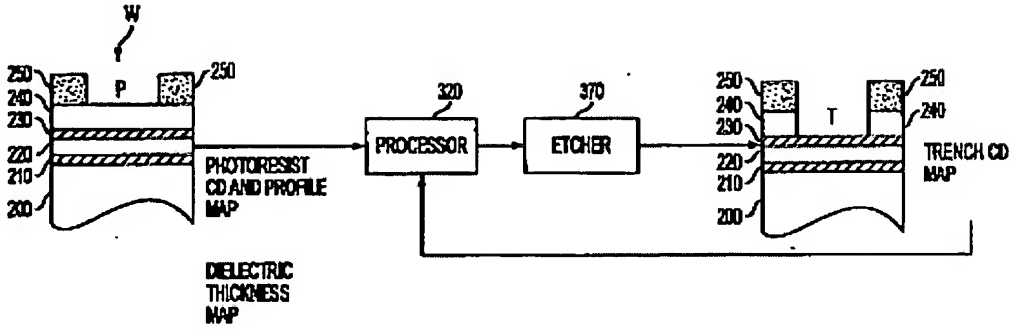

FIG. 2

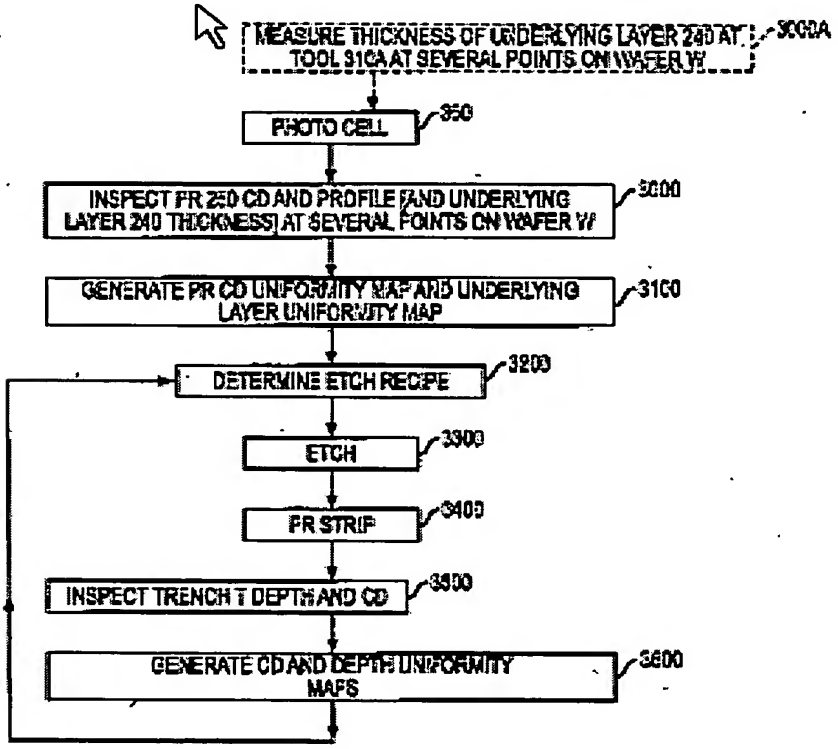

FIG. 3

means, including a feedback mechanism, for assuring that the opening created through the layer of etch resist material is within design specification (page 5, paragraph [0043] and page 6, paragraph [0054]);

means for creating an opening (unlabeled) through the layer of insulation material **240**, whereby a diameter of the layer of insulation material is dependent on a diameter of

the opening created through the layer of etch resist material (pages 3-4, paragraphs [0032]-[0034] and FIGS. 1-3); and

means, including a feedback mechanism, for assuring that the opening created through the layer of insulation material is within design specification (page 5, paragraph [0043] and page 6, paragraph [0054]);

In re claim 9, **Wu** discloses means for assuring that the opening created through the layer of etch resist material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment; and means for creating instructions for the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (pages 3-4, paragraphs [0033]-[0038]).

In re claim 10, **Wu** discloses that means for assuring that the opening created through the layer of insulation material is within design specification comprising: means for linking to a software supervisory function, thereby including data transmission functions, means for linking to a software function equally being linked to a software supervisory function, thereby including data transmission functions; means for data manipulating capabilities, thereby including manipulating interdependent data; means for interfacing with semiconductor equipment, thereby including equipment functioning in a

supporting role to the semiconductor equipment; and means for creating instructions for the semiconductor equipment, thereby including equipment functioning in a supporting role to the semiconductor equipment (pages 3-4, paragraphs [0033]-[0038]).

In re claim 11, **Wu** discloses that the system of claim 8, further comprising means for creating an opening having non-linear sidewalls through a layer of insulation material by applying a high-polymer based etch to the surface of the layer of insulation material (page 5, paragraph [0046]).

Allowable Subject Matter

Claims 12-14 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.
March 3rd, 2005

W. DAVID COLEMAN
PRIMARY EXAMINER